



WASTE MANAGEMENT & RADIATION CONTROL

HAZ-RAD REPORTER

State of Utah
Department of Environmental Quality

December 2015

Managing Editor:

Deborah Ng

Editor:

Karen Wehking

Inside this issue:

Page 2:

Radiation: Accidents Happen

Is Radon on

Your Health Radar?

Used Oil Recycling Update

Page 3:

Radiation Exposure

Throughout your Life

Background Equivalent

Radiation Time

When Senate Bill 244 passed on July 1, 2015 the Divisions of Radiation Control & Solid and Hazardous Waste merged into the



Division of Waste Management & Radiation Control

The Division is located on the 2nd floor of the Multi- Agency State Office Building
195 North 1950 West, Salt Lake City

Mailing address:

Utah Department of Environmental Quality
Division of Waste Management and Radiation Control
P.O. Box 144880, Salt Lake City, Utah 84114-4880
Phone: (801) 536-0200 Fax: (801) 536-0222



New EPA Proposed Pharmaceuticals Rules

Six Main Reasons for Proposed Rulemaking

1. Regulatory status of creditable pharmaceuticals
2. Manufacturing-oriented framework of the generator regulations
3. LQG status due to P-listed hazardous waste (Warfarin & Nicotine)
4. Intersection of EPA & DEQ regulations
5. Containers with P-listed pharmaceutical residues
6. Pharmaceuticals being flushed /sewered

Resources:

<http://www2.epa.gov/hwgenerators/proposed-rulemanagement-standards-hazardous-waste-pharmaceuticals>

<http://hwpharms.wikispaces.com>



New EPA Proposed

Hazardous Waste Generator Rules

Four Reasons for Proposed Rule

1. Reorganize regulation to make them user-friendly enabling improved compliance
2. Provide greater flexibility for HW generators to manage waste in a cost-effective manner
3. Strengthen environmental protection by addressing identified gaps in regulations
4. Clarify certain components of the HW generator program to address ambiguities and foster improved compliance

CESQG Waste Consolidation—Episodic Generation—Preparedness and Planning—HW Determinations—Labeling—Reporting—Satellite Accumulation Areas—Closure— Clarifying Generator Regulations—Other Revisions

Bottom Line: The proposed rule is an overhaul of the HW generator regulatory Program.

<http://www.gpo.gov/fdsys/pkg/FR-2015-09-25/pdf/2015-23166.pdf>

Radiation: Accidents Happen

The Nuclear Regulatory Commission began tracking nuclear material events in 1981. In 1993, NRC developed the Nuclear Materials Events Database (NMED) to track events involving radioactive materials. The NMED database contains more than 22,000 records of radioactive materials incidents that have been reported by NRC licensees, non-licensees and Agreement States regulators since January 1990.

The reported events include a description of each event, records of abnormal occurrences that could be a risk to the public, the radioactive material involved and the type of event. The database includes nine categories of events, plus an "other" category to include:

- o Equipment problems involving licensed material
- o Overexposures to radiation from licensed material
- o Fuel Cycle facility events
- o Lost/abandoned/stolen material events
- o Leaking sealed sources involving licensed material
- o Medical events involving licensed material

Each incident provides the NRC with an opportunity to improve safety protocols to ensure that unintentional releases remain the exception.

Accidents happen. But the folks at the **Division of Waste Management and Radiation Control** work hard to make sure that they don't; and if they do, that they don't harm the public.

Is RADON on Your Health Radar?

What is Radon — Radon is a naturally occurring radioactive gas that comes from soil. It comes from the natural decay of uranium that is found in rock, water and soils. You can't see it, taste it, or smell it. Protecting your indoor environment is an important health issue. Radon gas can enter your home many ways: through cracks and other holes in the foundation. The only way that you can know if you have elevated levels of radon gas is to test your home for it.

The Health Effect of Radon Gas is Lung Cancer. Your chances of getting lung cancer from radon depend mostly on how much radon is in your home, the amount of time you spend in your home and whether you are a smoker or have ever smoked. If you breathe air containing radon, you can get lung cancer. According to EPA, as a non-smoker, your risk of contracting lung cancer is 7 people out of 1000 at the EPA Action Level of 4 pCi/Liter of air.

Testing is the only way to know if you and your family are at risk from radon gas. Winter months are the best time to test for radon.

It is Easy and Inexpensive to Mitigate for Radon — If you discover your home has levels above the EPA Action Level of 4 pCi/Liter of air it is recommended that you find a certified mitigator from radon.utah.gov. The cost of mitigation is approximately \$1200 to \$1500.

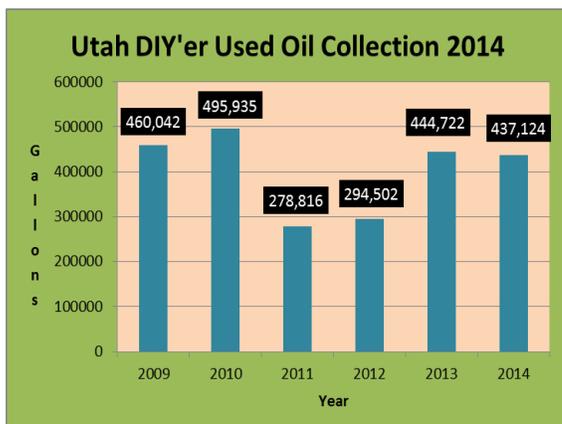
Radon Levels in Utah — 1 in 3 homes will have radon levels above 4 pCi/Liter of air. The average level indoors in Utah is 5.2 pCi/Liter of air. If you want to get more information about your zip code—go to radon.utah.gov and click on test results/zip code. Remember that different neighborhoods can have different quantities of radon; even different neighbors.

Radon Testing For Your Home

TAKE ACTION AND TEST TODAY!! TEST KITS \$8 FOR UTAH RESIDENTS—GO TO RADON.UTAH.GOV TO ORDER YOUR TEST KITS TODAY

For more information, contact Eleanor Diver, MPH, Radon Project Coordinator at (801) 536-0091

Utah Used Oil Recycling Update



As of June 31, 2015 there are

- 412 do-it-yourselfer (DIYer) used oil collection centers registered in Utah.
- 13 Local Health Department and 20 counties participate as Used Oil Collection Centers (UOCCs)
- 437,124 gallons of used oil recycled 2014 calendar yr.
- The total gallons reported is down by 2%.
- More businesses now burn their self-generated used oil for energy recovery to save on their heating costs.
- Efforts made by the DIY'er has made a tremendous impact on preserving Utah's environment through recycling efforts rather than careless disposal methods utilized in the past.



Keep Recycling!!



Radiation Exposure Throughout your Life



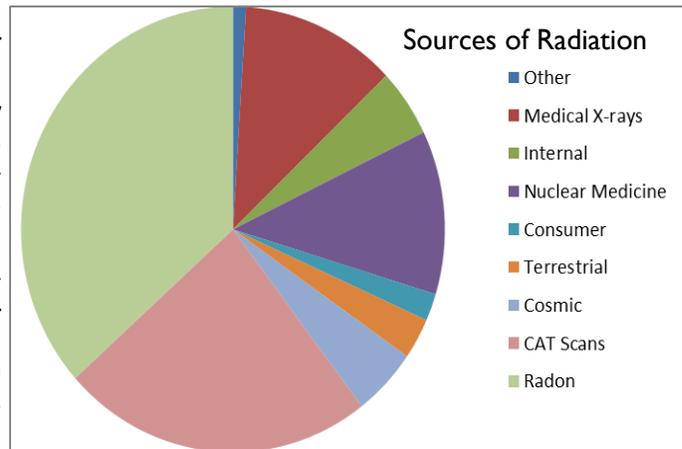
Medical X-rays cause the majority of the average person's exposure to man-made radiation. In 2006, Americans were exposed to more than seven times as much ionizing radiation from medical procedures as was the case in the early 1980's. The National Academies' National Research Council has reported that even low doses of ionizing radiation, such as X-rays, are likely to pose some risk of adverse health effects. State registration and inspection of X-ray equipment is necessary to minimize radiation exposure to the public. The goal and objective of the X-ray program is to ensure that users of X-ray equipment have an effective radiation safety program which reduces the likelihood that individuals receive unnecessary radiation exposure. Effective controls involve the following:

The X-ray unit performs as designed. This is needed to maintain high quality images and reduce the repeat of X-ray procedures. The result is adequate diagnostic information for appropriate patient care, while minimizing radiation exposure to the patient.

The training, education and licensing of X-ray equipment operators is evaluated.

Surveys of radiation levels in and around the X-ray suite are performed to ensure that regulatory limits are not exceeded. Information is collected to evaluate the potential radiation dose to radiation workers (employees) and the public.

Radiation dose to patients is evaluated so that medical practitioners can provide patients with information about the dose from an X-ray procedure. Comparing the information between facilities can help practitioners and patients evaluate the risk and benefits of an X-ray procedure.



Radiation safety procedures, concerning a pregnant patient, a pregnant worker, shielding of the patient or staff, and holding or assisting patients, can be evaluated.

Contracting with the U.S. Food and Drug Administration to evaluate how mammography facilities meet requirements of the federal Mammography Quality Standards Act helps to ensure high quality films are produced, the patient receives a low radiation dose, personnel making and interpreting films are qualified, and needed procedures exist to track patients when a lump is detected.

On-site evaluations of X-ray equipment can help medical personnel determine if the cause of poor quality images is due to the film development system or the performance of the X-ray equipment.

X-Ray Procedure	BERT (days)*	Effective Dose Equivalent (mrem)
Dental	2	1 to 2
Chest	6	1 to 5
Skull	20	10 to 20
Pelvis	65	70 to 140
L-spine	130	130 to 270
Head CT	300	200 to 400
Barium enema	390	510 to 880

*Background Equivalent Radiation Time (BERT)

For more information on our X-ray Program or questions involving registering of x-ray equipment, inspections, radiation protection and safety, please call our X-ray Program at (801) 536-0200.

HAZ-RAD REPORTER

PRSRT STD
U.S. POSTAGE

PAID

SALT LAKE CITY, UT
PERMIT NO. 4621



**WASTE MANAGEMENT
& RADIATION CONTROL**

Division of Waste Management and Radiation
Control

195 North 1950 West
P.O. Box 144880
Salt Lake City, Utah 84114-4880

Phone: 801-536-0200

Fax: 801-536-0222

Email: dng@utah.gov

